

[0127] A number of embodiments have been described. Nevertheless, it will be understood that various modifications may be made. Accordingly, other embodiments are within the scope of the following claims.

[0128] While the principles of the invention have been described herein, it is to be understood by those skilled in the art that this description is made only by way of example and not as a limitation as to the scope of the invention. Other embodiments are contemplated within the scope of the present invention in addition to the exemplary embodiments shown and described herein. Modifications and substitutions by one of ordinary skill in the art are considered to be within the scope of the present invention.

What is claimed is:

1. A two-stage infusion set inserter system comprising:  
an inserter assembly comprising:

a housing comprising:

a rotatable button assembly comprising ramps and tab indents; and

a non-rotatable portion of housing,

a sliding component comprising sliding component tabs;

a needle carrier connected to an introduction needle, the needle carrier slidably movable from a starting position to an injection position and then to a second ending position;

a sliding component spring; and

a needle spring;

wherein the rotatable button assembly rotates from a locked to an unlocked position,

wherein when force is applied onto the rotatable button assembly, the sliding component and needle carrier are forced downward by the sliding component spring, and

wherein when the needle carrier reaches the injection position, the needle spring forces the needle carrier upward towards the second ending position.

2. The system of claim 1, wherein the rotatable button assembly comprising ramps and and tab indents.

3. The system of claim 2, wherein the sliding component comprising sliding component tabs.

4. The system of claim 3, wherein when the rotatable button assembly is in the locked position, the sliding component tabs are in the tab indents.

5. The system of claim 4, wherein when the rotatable button assembly is in the unlocked position, the ramps are in contact with the sliding component tabs.

6. The system of claim 1, further comprising an infusion set attached to the housing.

7. The system of claim 6, wherein the infusion set comprising a base and wherein the base comprising an adhesive layer.

8. The system of claim 7, wherein the adhesive layer comprising an adhesive liner.

9. The system of claim 1, further comprising a slider stop, wherein when the sliding component reaches the slider stop, the slider stop forces the sliding component to stop downward movement.

10. The system of claim 7, wherein the needle carrier comprising spring fingers and wherein when the needle carrier interacts with the slide stop, the slide stop forces the spring fingers inward and the needle carrier moves from the injection position to the ending position.

11. The system of claim 8, further comprising an introduction needle connected to the needle carrier, wherein when the needle carrier moves to the ending position, the introduction needle moves to the ending position and wherein the introduction needle is inside the housing portion.

12. The system of claim 1, wherein the rotatable button assembly comprising a first alignment indicia and the non-rotatable portion of housing comprising a second alignment indicia, wherein when the rotatable button assembly rotates from a locked position to an unlocked position, the first alignment indicia and the second alignment indicia line up to indicate the system is in the unlocked position.

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